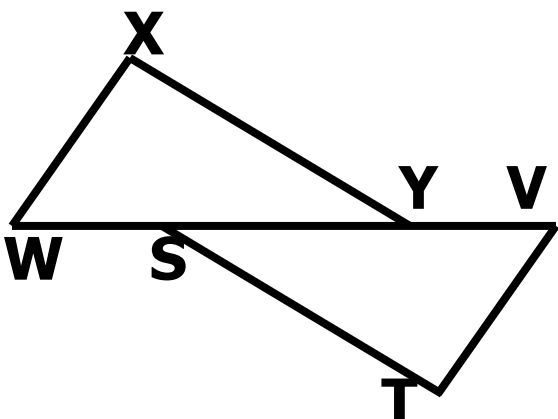


**Proof ONE**

Given:

$$\angle SVT \cong \angle YWX$$

$$\angle XYW \cong \angle TSV$$

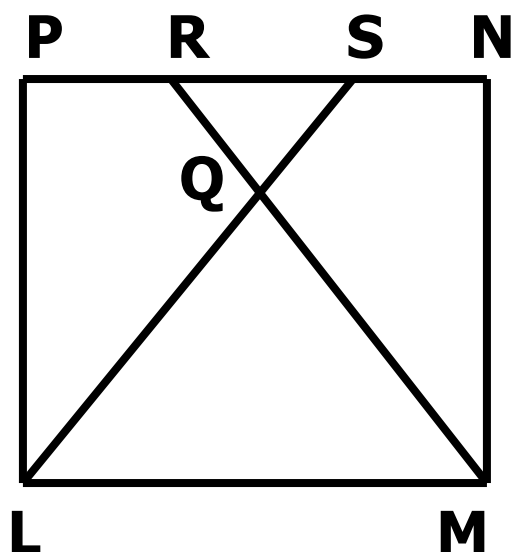
$$\overline{WS} \cong \overline{VY}$$

Prove:

$$\triangle WXY \cong \triangle VTS$$

$\angle SVT \cong \angle YWX$	Given
$\angle XYW \cong \angle TSV$	Given
$\overline{WS} \cong \overline{VY}$	Given
$\overline{SY} \cong \overline{SY}$	Reflexive Property
$\overline{WY} \cong \overline{VS}$	Addition Postulate
$\triangle WXY \cong \triangle VTS$	ASA

# Proof TWO



Given:

$$\overline{LP} \perp \overline{PN}$$

$$\overline{MN} \perp \overline{PN}$$

$$\overline{PR} \cong \overline{NS}$$

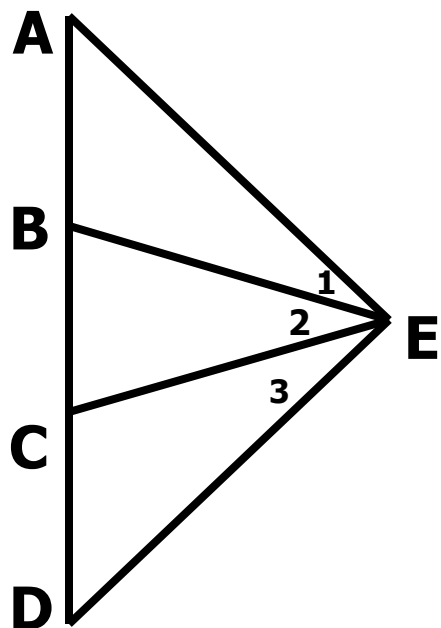
$$\overline{LP} \cong \overline{NM}$$

Prove:

$$\triangle PLS \cong \triangle NMR$$

$\overline{LP} \cong \overline{MN}$	Given
$\overline{PR} \cong \overline{NS}$	Given
$\overline{RS} \cong \overline{RS}$	Reflexive Property
$\overline{PR} + \overline{RS} \cong \overline{NS} + \overline{SR}$	Addition Postulate
$\overline{PS} \cong \overline{NR}$	Substitution Postulate

$\overline{LP} \perp \overline{PN}$	Given
$\overline{MN} \perp \overline{PN}$	Given
$\angle LPS$ and $\angle MNP$ are right $\angle$ s	Definition of <i>perpendicular</i>
$\angle LPS \cong \angle MNP$	Right $\angle$ s are congruent
$\triangle PLS \cong \triangle NMR$	SAS

**Proof THREE**

Given :

$$\angle 1 \cong \angle 2$$

$$\angle 2 \cong \angle 3$$

$$\overline{EB} \cong \overline{EC}$$

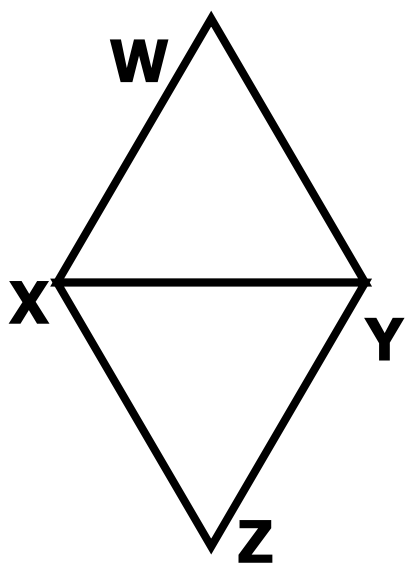
$$\overline{AE} \cong \overline{DE}$$

Prove:

$$\triangle AEB \cong \triangle DEC$$

$\angle 1 \cong \angle 2$	Given
$\angle 2 \cong \angle 3$	Given
$\angle 1 \cong \angle 3$	Transitive Property
$\overline{EB} \cong \overline{EC}$	Given
$\overline{AE} \cong \overline{DE}$	Given
$\triangle AEB \cong \triangle DEC$	SAS

### Proof FOUR



Given:

$\overline{XY}$  bisects  $\angle WYZ$

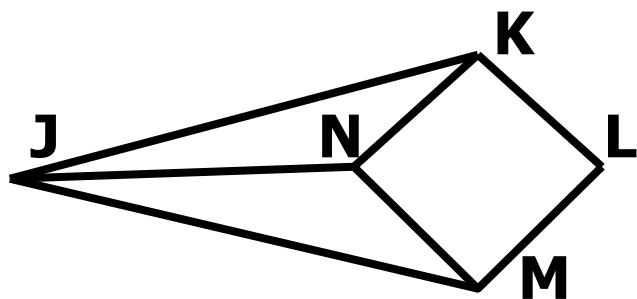
$\overline{WX} \cong \overline{YZ}$

Prove:

$\triangle WXY \cong \triangle ZXY$

$\overline{XY}$ bisects $\angle WYZ$	Given
$\angle WXY \cong \angle ZXY$	Definition of $\angle$ bisector
$\overline{XY} \cong \overline{XY}$	Reflexive Property
$\overline{WX} \cong \overline{YZ}$	Given
$\triangle WXY \cong \triangle ZXY$	SAS

### Proof FIVE



Given:

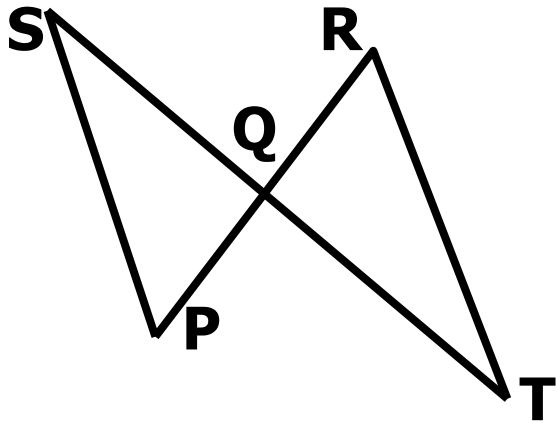
$\square NKLM$  is a square

$$\overline{JK} \cong \overline{JM}$$

Prove:

$$\triangle JKN \cong \triangle JMN$$

$\square NKLM$ is a square	Given
$\overline{NM} \cong \overline{NK}$	All sides of a $\square$ are $\cong$
$\overline{JN} \cong \overline{JN}$	Reflexive Property
$\overline{JK} \cong \overline{JM}$	Given
$\triangle JKN \cong \triangle JMN$	SSS

**Proof SIX**

Given:

Q is the midpoint of  $\overline{PR}$

$\angle P \cong \angle R$

Prove:

$\triangle SPQ \cong \triangle TRQ$

Q is the midpoint of $\overline{PR}$	Given
$\overline{PQ} \cong \overline{RQ}$	Definition of <i>midpoint</i>
$\angle SQP \cong \angle TQR$	Vertical $\angle$ s are $\cong$
$\angle P \cong \angle R$	Given
$\triangle SPQ \cong \triangle TRQ$	ASA